

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 085747 - 0389	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2004/041401	International filing date (day/month/year) 13/12/2004	(Earliest) Priority Date (day/month/year) 19/12/2003
Applicant ASTRAZENECA AB		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

5-FLUORO-, CHLORO- AND CYANO-PYRIDIN-2-YL-TETRAZOLES AS LIGANDS OF THE METABOTROPIC GLUTAMATE RECEPTOR-5

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/041401

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D401/04 C07D213/84 A61K31/4439 A61P25/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/029210 A (MERCK & CO. INC; COSFORD, NICHOLAS, D; ROPPE, JEFFREY; CHEN, CHIXU; SM) 10 April 2003 (2003-04-10) cited in the application Abstract; claims; examples, e.g. nos. 43, 55, 62, and 116.	1-18
X	US 2003/055085 A1 (WAGENEN BRADFORD VAN ET AL) 20 March 2003 (2003-03-20) Abstract; page 6, paragraphs '0135! to '0142!; examples, e.g. page 16, no. B31, and page 17, no. B60; page 45, paragraph '0374!.	1-18

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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

4 April 2005

Date of mailing of the international search report

23. 06. 2005

Name and mailing address of the ISA

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Authorized officer

Weisbrod, T

INTEF TIONAL SEARCH REPORT

Ir. ational Application No
PCT/US2004/041401

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 02/068417 A (NPS PHARMACEUTICALS, INC; SLASSI, ABDELMALIK; VAN WAGENEN, BRADFORD; S) 6 September 2002 (2002-09-06) Abstract; page 6, line 21, to page 7, line 6; page 49, lines 17-22; examples, e.g. page 110, no. B31; and page 127, no. B60.</p> <p>-----</p>	1-18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/041401

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-18

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

Compounds (I) and subject matter referring to compounds (I):

1.1. claims: 1-18 (all part)

Compounds (I) wherein Z is fluoro and chloro; and subject matter referring to such compounds (I);

1.2. claims: 1-18 (all part)

Compounds (I) wherein Z is cyano; and subject matter referring to such compounds (I);

2. claims: 19-25

A process for making a pyridyl compound having a cyano substituent and a fluoro substituent.

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Information on patent family members

International Application No

PCT/US2004/041401

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03029210	A	10-04-2003	CA 2462289 A1	10-04-2003
			EP 1434773 A2	07-07-2004
			JP 2005508344 T	31-03-2005
			WO 03029210 A2	10-04-2003
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			BR 0013427 A	30-07-2002
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			HU 0202757 A2	28-12-2002
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			MX PA02001764 A	19-03-2004
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			NZ 517221 A	30-01-2004
			PL 353825 A1	01-12-2003
			SK 2512002 A3	02-07-2002
			CN 1379775 A	13-11-2002
			CZ 20020599 A3	12-06-2002
			WO 0112627 A1	22-02-2001
			ZA 200201358 A	19-05-2003
			BR 0207390 A	13-10-2004
			CA 2438991 A1	06-09-2002
			EP 1379525 A2	14-01-2004
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			NO 20033711 A	17-10-2003
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			CA 2438991 A1	06-09-2002
			EP 1379525 A2	14-01-2004
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			NO 20033711 A	17-10-2003
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			US 2003055085 A1	20-03-2003
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			ZA 200306493 A	22-11-2004